CLAIMS

1. A device (5) for generating speech, **characterised** by:
a microcontroller (6) connectable to an apparatus for receiving data to be converted to speech, and sending the data to a conversion circuit (7);
a conversion circuit (7) connectable to a speaker system (9) for converting the data to a speech signal.

2. A device according to claim 1, **characterised** in that the data is supplied as ASCII characters.

3. A device according to claim 1 or 2, **characterised** in that the conversion circuit (7) supports various selectable languages.

4. A device according to claim 3, **characterised** in that the conversion circuit (7) is capable of downloading languages via the connected apparatus.

5. A device according to any one of claims 1 to 4, **characterised** in that the conversion circuit (7) supports various selectable voices.

6. A device according to claim 5, **characterised** in that the conversion circuit (7) is capable of downloading voices via the connected apparatus (1).

7. A device according to any one of claims 1 to 6, **characterised** in that the speed of the speech signal is adjustable.

8. A device according to any one of claims 1 to 7, **characterised** in that the microcontroller (6) is connectable to a memory containing language information, such as various languages, abbreviation lists and dictionaries.

9. A device according to any one of claims 1 to 8, **characterised** in that the microcontroller (6) is connectable to a memory containing voice settings.

10. A device according to any one of claims 1 to 9, **characterised** in that the microcontroller (6) is connectable to the apparatus (1) by means of a system connector having an interface (10) for audio signals, serial channels, power leads and analog and digital ground leads.

11. A device according to claims 10, **characterised** in that the device is implemented as a functional cover, comprising a shell covering the front of the

apparatus (1) and a microprocessor cooperating with the processor of the apparatus (1).

12. A device according to any one of claims 1 to 11, **characterised** in that the connectable apparatus (1) is a portable telephone, a pager, a communicator or an electronic organiser.

13. An apparatus (1) having a display (2) for showing various readable data, **characterised** by a control unit arranged to extract readable data for sending to a device (5) for generating speech in accordance with any one of the preceding claims.

14. An apparatus according to claim 13, **characterised** in that the readable data includes texts from menus, text messages, help information, calendars or confirmation of actions taken with the apparatus (1).

15. An apparatus according to claims 13 or 14, **characterised** in that the control unit is arranged to extract a part of the readable data, such as a line or a word, at a time from the display (2) and sending it automatically to the speech generating device (5) at a fixed or controllable rate.

16. An apparatus according to claims 13, 14 or 15, **characterised** in that the control unit is arranged to extract a part of the readable data, such as a line or a word, at a time from the display (2) and sending it to the speech generating device (5) in dependence of scrolling in the display (2).

17. An apparatus according to claims 13, 14, 15 or 16, **characterised** in that the control unit is arranged to extract a part of the readable data, such as a line or a word or a character, at a time from the display (2) and sending it to the speech generating device (5) in dependence of inputting characters to the apparatus.

18. An apparatus according to claims 17, **characterised** in that the control unit is arranged to send readable data as triggered by the input of definite characters, such as letters, signs, spaces or punctuation marks.

19. An apparatus according to any one of claims 13 to 18, **characterised** in that the control unit is arranged to extract readable data from a selected file and sending it automatically to the speech generating device (5) at a fixed or controllable rate.

20. An apparatus (1) having a display for showing various readable data, **characterised** by including a control unit and a device for generating speech comprising a conversion circuit for converting data to a speech signal and connectable to a speaker system (9; 11), wherein the control unit is arranged to extract readable data for sending to the speech generating device .

21. An apparatus according to claim 20, **characterised** in that the speaker system (11) is integrated with the apparatus.

22. An apparatus according to claim 20 or 21, **characterised** in that the data is supplied as ASCII characters.

23. An apparatus according to claim 20, 21 or 22, **characterised** in that the conversion circuit supports various selectable languages.

24. An apparatus according to claim 23, **characterised** in that the apparatus (1) is capable of downloading languages.

25. An apparatus according to any one of claims 20 to 24, **characterised** in that the conversion circuit supports various selectable voices.

26. An apparatus according to claim 25, **characterised** in that the apparatus (1) is capable of downloading voices.

27. An apparatus according to any one of claims 206 to 26, **characterised** in that the speed of the speech signal is adjustable.

28. An apparatus according to any one of claims 20 to 27, **characterised** in that the apparatus (1) is connectable to a memory containing language information, such as various languages, abbreviation lists and dictionaries.

29. An apparatus according to any one of claims 20 to 28, **characterised** in that the apparatus (1) is connectable to a memory containing voice settings.

30. An apparatus according to any one of claims 20 to 29, **characterised** in that the readable data includes texts from menus, text messages, help information, calendars or confirmation of actions taken with the apparatus (1).

31. An apparatus according to any one of claims 20 to 29, **characterised** in that the control unit is arranged to extract a part of the readable data, such as a line or a word, at a time from the display and sending it automatically to the speech generating device at a fixed or controllable rate.

32. An apparatus according to any one of claims 20 to 31, **characterised** in that the control unit is arranged to extract a part of the readable data, such as a line or a word, at a time from the display and sending it to the speech generating device in dependence of scrolling in the display (2).

33. An apparatus according to any one of claims 20 to 32, **characterised** in that the control unit is arranged to extract a part of the readable data, such as a character, a line or a word, at a time from the display (2) and sending it to the speech generating device (5) in dependence of inputting characters to the apparatus.

34. An apparatus according to claims 33, **characterised** in that the control unit is arranged to send readable data as triggered by the input of definite characters, such as letters, signs, spaces or punctuation marks.

35. An apparatus according to any one of claims 20 to 34, **characterised** in that the control unit is arranged to extract readable data from a selected file and sending it automatically to the speech generating device (5) at a fixed or controllable rate.

36. An apparatus according to any one of claims 13 to 35, **characterised** in that the apparatus is a portable telephone, a pager, a communicator or an electronic organiser.

37. A computer program product loadable into the internal memory of an apparatus (1) having a display for showing various readable data, **characterised** by comprising software code portions to achieve the functionality of the apparatus in accordance with any one of claims 20 to 36.

38. A computer program product according to claim 37, embodied on a computer readable medium.